



African Journal of Biological Sciences



A Study On Unraveling Misinformation: Social Media Dynamics And Public Perception During COVID-19 In Jaipur

Akash Modi^{1*}, Dr. Pallavi Mishra²

^{1*}Research Scholar, Amity School of Communication, Amity University Rajasthan.

²Associate Professor, Amity School of Communication, Amity University, Rajasthan.

ARTICLE HISTORY

VOLUME 6, ISSUE SI4, 2024

Received: 15 April 2024.

Accepted: 15 July 2024

Published: 23 July 2024

DOI:

10.48047/AFJBS.6.SI4.2024.3565-3578

Abstract

Social media has significantly altered the landscape of news dissemination, with approximately 2.95 billion users globally by 2020. During the COVID-19 pandemic, these platforms were crucial for spreading vital information and guidelines. However, they also became hotbeds for misinformation, fueled by a lack of regulation and the rapid spread of conspiracy theories.

This study investigates the prevalence, types, motivations, and impacts of misinformation in Jaipur during the COVID-19 pandemic. By analyzing 130 widely circulated false news stories on Facebook, YouTube, Twitter, and WhatsApp, we categorize misinformation topics such as medical facilities' handling of COVID-19, false treatment methods, and unverified therapies. The primary media formats used to spread misinformation included text, photos, videos, and audio clips. Motivations behind misinformation ranged from sensationalism and promotion of specific drugs to undermining trust in government institutions. The consequences for Jaipur residents included increased psychological distress, adherence to unsafe medical advice, and economic instability.

This paper highlights the significance of media literacy and public awareness in countering false narratives, and it also addresses the regulatory obstacles in mitigating misinformation on social media. The results emphasize the need of public health platforms, governmental organizations, and the media working together to reduce the spread of false information during and after social media crises.

Keynotes: Social Media, COVID-19, Fake News, Misinformation, Propaganda, Disinformation, Jaipur City.

Introduction

Social media platforms have significantly changed how information is consumed and disseminated globally. With 2.95 billion users globally by 2020, social media has become a significant news and information source. The digital revolution has gained particular significance in times of global calamities, like the COVID-19 pandemic, when there is a critical need for quick information transmission. Throughout the pandemic, social media platforms like "Facebook, Twitter, YouTube, and WhatsApp" were essential in spreading information, advice, and support for public health. Nevertheless, these platforms also served as channels for misinformation, disseminating inaccurate and deceptive information on an unprecedented level.

Misinformation, which refers to the dissemination of inaccurate or deceptive information presented as truth, has consistently posed a significant obstacle in the realm of public communication. Historical examples, like the anti-vaccination campaign in the 18th century, illustrate the enduring presence of false information in the field of health.

Information on infectious diseases, social health programs, and vaccinations has been widely spread. Stressful situations, public unhappiness, and false social impressions have resulted from the decline in accurate communication. The smallpox vaccines were banned in Paris in the 18th century because they were linked to an outbreak, which sparked the anti-vaccination movement. Similarly, the reappearance of rubella in 2018 demonstrates the persistence of inaccurate or false information.

The COVID-19 pandemic has resulted in a significant global death toll and has markedly increased the dissemination of false or misleading information. This included unfounded assertions on the virus's source, spread, and remedy, along with speculative notions concerning vaccinations and governmental actions. The ramifications of such misinformation are significant, resulting in public perplexity, skepticism towards authorities, failure to adhere to health protocols, and even direct jeopardy to people's well-being and safety.

The rapid worldwide dissemination of COVID-19 led to a pandemic that posed a danger to life around the globe. Social networks played essential roles in distributing both local and worldwide news, advice, and warnings about the pandemic, which were crucial in effectively battling the virus and mitigating its impact. As of 2022, the global user base of social networks exceeded 3 billion individuals, and it is estimated to grow to 3.43 billion by 2023.

In the era of improved communication and online social networks, the spread of false information, often referred to as fake news or rumors, continues to be a major problem (Campinho, 2019). The COVID-19 pandemic has resulted in a "infodemic," a combination of information and epidemic, marked by a deluge of both accurate and false information. This infodemic has led to more than a million fatalities. Disseminating false information worsens the situation, whilst sharing honest information aids in alleviating it.

The proliferation of false information has attracted growing scholarly attention due to its extensive prevalence. In India, misinformation is widespread on the internet, driven by factors including political pressures and public health concerns, despite the country's position as a developing nation (Azim et. al., 2020).

"In 2020, Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), stated that we are not just combatting an epidemic, but also an infodemic," The WHO expeditiously established the Information Network for Epidemics to effectively disseminate targeted audiences with specialized information, recognizing that pandemics are accompanied by a plethora of both reliable and misleading data (Zarocostas, 2020).

The infodemic presents a substantial threat to both public health and the social fabric. Online material has the ability to have a beneficial effect on behaviors by offering accurate information. However, it may also have a detrimental impact on public attitudes and behaviors, which might possibly impair health (Lara-Navarra et. al., 2020).

India, due to its extensive and heterogeneous population, has been especially susceptible to the dissemination of false information. The rapid spread of false information is influenced by a variety of factors, including the widespread use of social media, varying levels of digital literacy, and socio-political dynamics. For urban health institutions and the general public in urban areas like Jaipur, the COVID-19 pandemic's spread of false or inaccurate information made matters worse.

A complete understanding of the complexity of misinformation is necessary in order to plan and implement remedies against it successfully. In addition to providing clarification on the particulars of

misinformation in Jaipur during the COVID-19 pandemic, this research adds to the greater discussion on digital misinformation and its consequences on public health and social stability. The results will play a crucial role in shaping public policy, improving media literacy initiatives, and directing the actions of social media platforms to reduce the dissemination of false information.

Review of Literature

Misinformation on social media has been a subject of growing academic interest, particularly due to its profound impact on public health, political stability, and social trust. This literature review examines the existing research on misinformation, focusing on its definitions, historical context, impact during health crises, particularly the COVID-19 pandemic, and its spread in the Indian context.

Definition and Conceptualization of Misinformation

Misinformation is typically defined as false or misleading information presented as fact, irrespective of intent (Karlova & Fisher, 2013). It is distinct from disinformation, which is deliberately deceptive (Wardle & Derakhshan, 2017). The challenge of misinformation is its potential to influence public perception and behavior, often leading to significant societal consequences (Lewandowsky et al., 2017).

Historical Context of Misinformation

The spread of misinformation is not a new phenomenon. An example from history is the anti-vaccination movement that arose in the 18th century. In Paris, smallpox vaccines were prohibited because they were falsely linked to illness outbreaks (Blume, 2006). The resurgence of rubella in 2018 further showcases the persistent nature of misinformation in the health domain, where false beliefs about vaccine safety and efficacy continue to influence public behavior (Hotez, 2019).

Misinformation in the Age of Social Media

The advent of social media has amplified the reach and speed at which misinformation spreads. Platforms like Facebook, Twitter, and WhatsApp enable users to share information rapidly and widely, often without verification (Allcott & Gentzkow, 2017). The viral nature of social media content means that misinformation can quickly reach large audiences, making it challenging to correct (Vosoughi, Roy, & Aral, 2018).

Impact of Misinformation During Health Crises

In times of health emergencies, the dissemination of false or inaccurate information may lead to very serious outcomes. The problem was brought to the forefront during the COVID-19 pandemic, since there was a significant amount of false information circulating concerning the origins, transmission, and treatment of the virus. This resulted in public uncertainty and a lack of faith in health authorities (Pennycook et al., 2020). WHO coined the term "infodemic" to highlight the difficulty of effectively handling an excessive amount of information, which includes both accurate and false information (Zarocostas, 2020).

The COVID-19 Infodemic

The "World Health Organization (WHO)" introduced the word "infodemic" to refer to the overwhelming amount of information, including both accurate and inaccurate content, that is being disseminated during the COVID-19 pandemic. The abundance of information posed a challenge for people in determining credible sources and dependable recommendations (WHO, 2020). Studies reveal that misinformation pertaining to COVID-19 included erroneous assertions about the virus's source, methods of prevention, and therapies, with conspiracy theories concerning vaccinations and governmental actions (Mian & Khan, 2020).

Case Study: Misinformation in India

India presents a unique case study for examining misinformation due to its vast and diverse population, high social media penetration, and varying levels of digital literacy (Rao, 2020). Political pressures and public health concerns further complicate the landscape of misinformation (Azim, Roy, Aich, & Dey, 2020). During the COVID-19 pandemic, research has shown that there was a widespread dissemination of erroneous or false information in India. The challenges faced by public health professionals and the general public were exacerbated by this (Mukherjee, 2020).

Theoretical Framework: The concept of Framing Theory

Framing theory provides an insightful viewpoint for understanding how information is communicated and understood. The process of purposefully emphasizing certain aspects of a perceived reality in a communication text is known as framing, according to Entman (1993). The way audiences see and react to information is greatly influenced by this process. In the context of misinformation, framing can determine whether false information is accepted or rejected by the public (Chong & Druckman, 2007).

Media Literacy and Countermeasures

Improving media literacy is often proposed as a solution to combat misinformation. Media literacy involves the ability to critically evaluate and analyze media content, enabling individuals to identify false or misleading information (Potter, 2013). Educational initiatives aimed at enhancing media literacy can help mitigate the impact of misinformation, particularly during health crises (Vraga & Tully, 2019).

Theoretical Framework

The theoretical framework for this research is grounded in multiple established theories that offer insights into the dynamics of misinformation dissemination and its impact on public perception and behavior. These theories include Framing Theory, the Information Overload Theory, and the Diffusion of Innovations Theory. Together, they provide a comprehensive understanding of how misinformation spreads, how it is perceived, and how it influences behavior, particularly in the context of the "COVID-19 pandemic in Jaipur, India".

A. Framing Theory

Framing Theory, as articulated by Entman (1993), is crucial for understanding how information is presented and perceived. The intentional selection of certain features from reality and amplification of their prominence within a communication piece is known as framing. Selectively stressing specific informational components has a significant effect on how audiences process that information and, in turn, how they respond to it.

Application to Misinformation: In the case of misinformation, framing plays a critical role in determining whether the public accepts or rejects false information. Misinformation that is delivered during the COVID-19 pandemic in a way that supports preconceived notions and views is more likely to be accepted. This includes conspiracy theories about the virus's origins or vaccine safety concerns that align with pre-existing distrust in authorities.

B. Information Overload Theory

Information Overload Theory, proposed by Eppler and Mengis (2004), posits that an excessive amount of information can lead to cognitive overload, reducing individuals' ability to process and evaluate information effectively.

Application to Misinformation: Amidst the COVID-19 pandemic, the abundance of information, including both reliable and deceptive content, has inundated several people. The proliferation of

information during this "infodemic" has hindered individuals' ability to distinguish credible sources and dependable recommendations. Information overload contributes to the spread of misinformation, as individuals, unable to process all available information, may rely on heuristics or cognitive shortcuts, leading to the acceptance of false information.

C. Diffusion of Innovations Theory

Dissemination of New Ideas Rogers (2003) devised a theory that elucidates the process by which new ideas, habits, or goods disseminate within a community. The theory delineates many factors that have an impact on the adoption of innovations, including the perceived features of the invention, the communication channels used, the social system, and the element of time.

Utilization of Misinformation: Misinformation may be seen as a sort of "novelty" that disseminates via social networks. Social media platforms enable the quick spread of false information due to their high speed and wide reach. The perceived credibility of the source, the emotional appeal of the content, and the social context all play critical roles in how misinformation is disseminated and accepted.

D. Integrating Theories in the Context of COVID-19

Amidst the COVID-19 pandemic, these ideas jointly provide a comprehensive framework for comprehending the dissemination and consequences of misinformation:

- **Framing Effects:** During the pandemic, misinformation has been framed in ways that exploit fear, uncertainty, and existing prejudices. For instance, misinformation about vaccine side effects has been framed to emphasize rare adverse events, overshadowing the benefits of vaccination.
- **Information Overload:** The constant flow of information about COVID-19, including updates from health authorities, news reports, and social media posts, has created an environment of information overload. This has made it challenging for individuals to filter out false information, increasing the likelihood of misinformation acceptance.
- **Diffusion Dynamics:** Social media platforms have been critical in the rapid dissemination of misinformation. The viral nature of social media posts means that misinformation can spread quickly through networks, particularly when shared by influential users or within tight-knit communities.

E. Empirical Support and Relevance to Jaipur, India

Empirical studies have supported the relevance of these theories to understanding misinformation during the COVID-19 pandemic. For example, research by Pennycook et al. (2020) found that misinformation about COVID-19 is more likely to be believed when it aligns with individuals' pre-existing attitudes and is framed in a compelling way. Studies in India, such as those by Mukherjee (2020), have highlighted how misinformation has spread rapidly through social media platforms, exacerbated by information overload and the viral nature of digital communication.

In Jaipur, these theoretical insights are particularly relevant. The city's diverse population, varying levels of digital literacy, and high social media usage create a fertile ground for the spread of misinformation. Understanding the framing, overload, and diffusion dynamics at play can help in developing targeted interventions to combat misinformation and improve public health communication.

The theoretical framework for this research integrates Framing Theory, Information Overload Theory, and Diffusion of Innovations Theory to provide a comprehensive understanding of misinformation dynamics. These theories provide a clear explanation of how misinformation is presented, disseminated, and understood.

Research Objectives

The present research is mainly focusing on following objectives:

- 1) To Identify the Prevalence and Categories of Misinformation
- 2) To Examine the Media Formats Used for Misinformation
- 3) To Explore the Motivations Behind Misinformation
- 4) To Evaluate the Impact of Misinformation on Jaipur’s Residents

Research Methodology

A. Research Design

Exploratory Study: An exploratory research methodology was used because to the dynamic and shifting nature of misinformation during the COVID-19 pandemic. This made it possible to thoroughly investigate all the many aspects of misinformation in Jaipur.

Descriptive Analysis: The study focused specifically on the spread of false information about COVID-19 via social media platforms in order to identify its prevalence, kinds, reasons, and effects.

B. Data Collection

Sampling Strategy: A purposive sampling approach was employed to select a representative sample of misinformation instances. This involved identifying and documenting 130 widely circulated false news stories on platforms such as “Facebook, YouTube, Twitter, and WhatsApp”.

Selection Criteria: Misinformation stories were selected based on their virality, relevance to COVID-19, and geographical relevance to Jaipur, ensuring a diverse representation of misinformation types.

C. Data Sources

Content Sources: Data collection primarily involved accessing and analyzing publicly available posts, videos, tweets, and messages related to COVID-19 misinformation in Jaipur.

Keyword Searches: Keywords related to COVID-19 misinformation, Jaipur, and specific themes (e.g., medical facilities handling COVID-19, treatment methods) were used to identify relevant content.

D. Data Analysis

Content Analysis: Misinformation content was systematically analyzed and categorized into thematic areas:

Misinformation Categories: Classification included misinformation about medical facilities' handling of COVID-19, false claims regarding COVID-19 treatment and procedures, and promotion of unverified therapeutic choices.

Media Format Analysis: The study examined the prevalence and impact of different media formats (text, photos, videos, audio) in spreading misinformation.

Qualitative Coding: Qualitative coding techniques were applied to identify patterns, themes, and motivations behind the dissemination of false information. This included identifying common narratives, linguistic markers of sensationalism, and recurring misinformation tropes.

E. Ethical Considerations

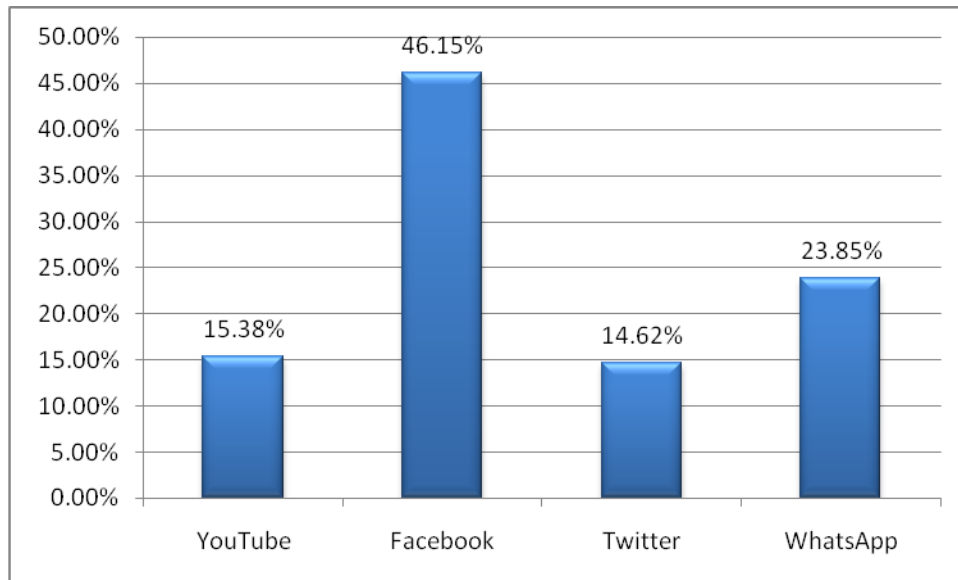
Privacy and Anonymity: Personal information of individuals or organizations involved in spreading misinformation was handled confidentially and anonymized to protect privacy.

Accuracy and Verification: Efforts were made to verify the accuracy of misinformation claims and sources through cross-referencing with credible sources and fact-checking platforms.

Data Analysis and Interpretation

Table 1: “Total Numbers of Fake News

Source	Frequency	Percentage	Cumulative Percentage
YouTube	20	15.38%	15.38%
Facebook	60	46.15%	61.53%
Twitter	19	14.62%	76.15%
WhatsApp	31	23.85%	100.00%
Total	130	100%	100%

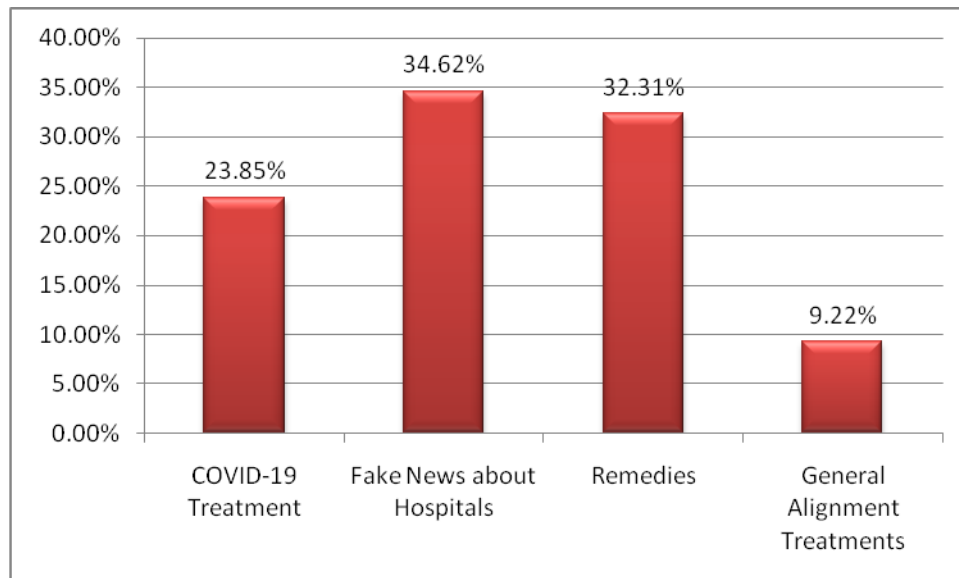


Interpretation

The data analysis shows that Facebook is the most common source of fake news in Jaipur, accounting for 46.15% of the total. WhatsApp follows with 23.85%, while YouTube and Twitter contribute 15.38% and 14.62% respectively. This highlights Facebook and WhatsApp as major platforms for misinformation dissemination during the COVID-19 pandemic in Jaipur.

Table 2: Forms of Fake News on Social Media Platforms in Jaipur"

Category of Fake News	Frequency	Percentage	Cumulative Percentage
COVID-19 Treatment	31	23.85%	23.85%
Fake News about Hospitals	45	34.62%	58.47%
Remedies	42	32.31%	90.78%
General Alignment Treatments	12	9.22%	100%
Total	130	100%	100%

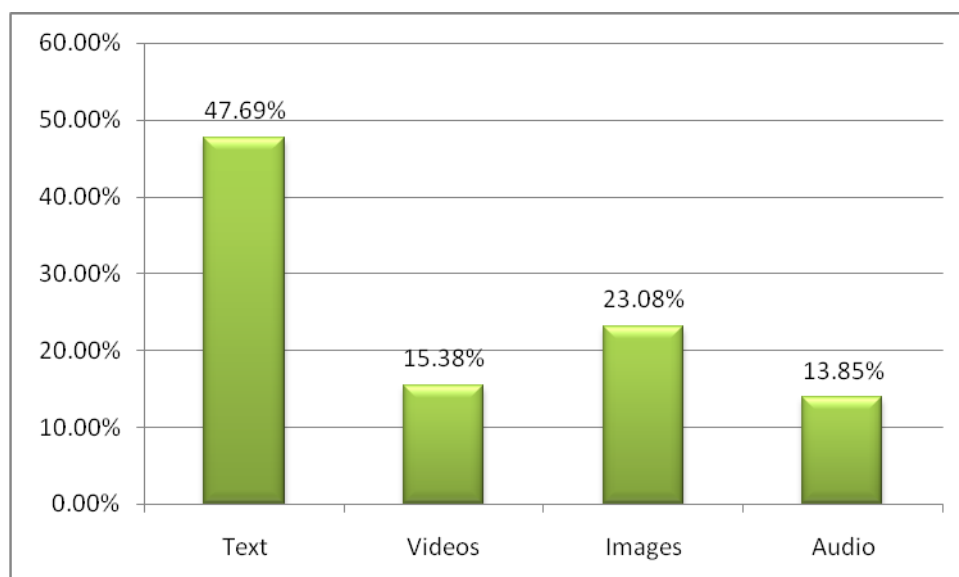


Interpretation

The analysis indicates that fake news about hospitals is the most prevalent, comprising 34.62% of the total, followed closely by misinformation about remedies at 32.31%. False information about COVID-19 treatment accounts for 23.85%, while general alignment treatments are the least common at 9.22%. This highlights hospitals and remedies as major topics of misinformation in Jaipur during the COVID-19 pandemic.

Table 3: Category of Fake News on Social Media Platforms in Jaipur

Category of Fake News	Frequency	Percentage	Cumulative Percentage
Text	62	47.69%	47.69%
Videos	20	15.38%	63.07%
Images	30	23.08%	86.15%
Audio	18	13.85%	100%
Total	130	100%	100%

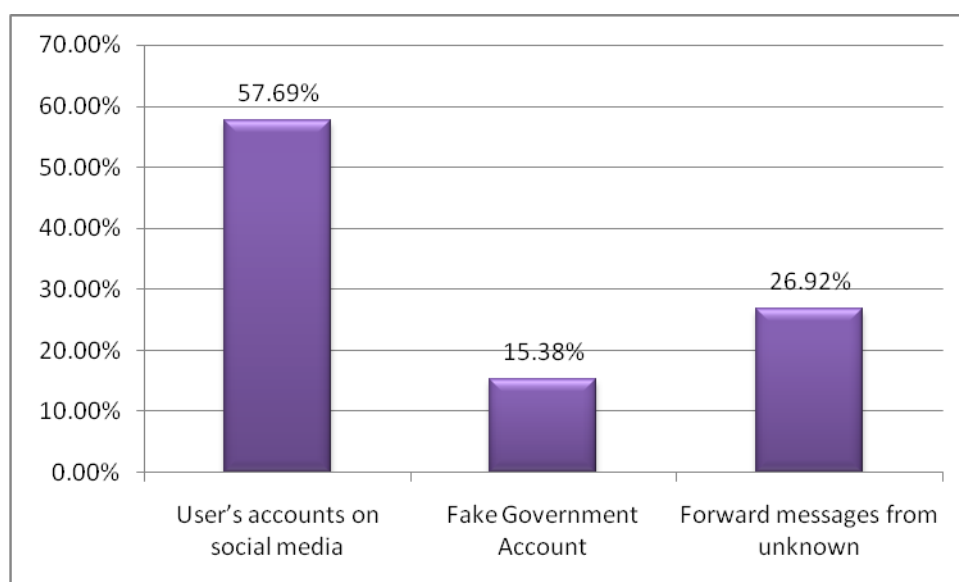


Interpretation

The data shows that text-based fake news is the most common form on social media platforms in Jaipur, accounting for 47.69% of the total. Images and videos make up 23.08% and 15.38%, respectively, while audio recordings are the least frequent at 13.85%. This indicates that text is the predominant medium for spreading misinformation in Jaipur.

Table 4: “Sources of Fake News on Social Media Platforms in Jaipur

Sources of Fake News	Frequency	Percentage	Cumulative Percentage
User’s accounts on social media	75	57.69%	57.69%
Fake Government Account	20	15.38%	73.07%
Forward messages from unknown	35	26.92%	100%
Total	130	100%	–

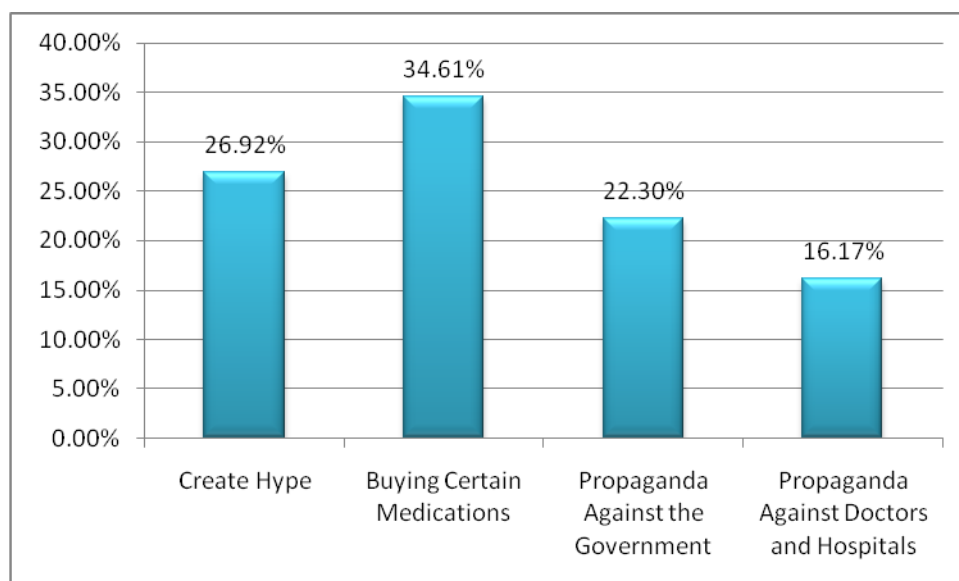


Interpretation

The analysis reveals that the majority of fake news in Jaipur originates from user accounts on social media, comprising 57.69% of the total. Forward messages from unknown sources account for 26.92%, while fake government accounts contribute 15.38%. This highlights user accounts as the primary source of misinformation on social media platforms in Jaipur.

Table 5: Agenda for Fake News on Social Media Platforms in Jaipur”

Agenda for Fake News	Frequency	Percentage	Cumulative Percentage
Create Hype	35	26.92%	
Buying Certain Medications	45	34.61%	
Propaganda Against the Government	29	22.30%	
Propaganda Against Doctors and Hospitals	21	16.17%	
Total	215	165.08%	–



Interpretation

According to the data, 34.61% of the entire fake news agenda in Jaipur is pushing the purchase of certain pharmaceuticals. Creating hype follows at 26.92%, while propaganda against the government and against doctors and hospitals make up 22.30% and 16.17%, respectively. This indicates a significant focus on misleading health-related information and political propaganda.

Discussion on Key Findings

This study aimed to explore the nature, spread, and impact of misinformation related to the COVID-19 pandemic in Jaipur, India. Through a comprehensive analysis, several key findings emerged, providing insights into the dynamics of misinformation and its implications for public health and social stability. This discussion section elaborates on these findings, drawing connections to existing literature and theoretical frameworks, and highlighting their significance.

Key Findings

A. Prevalence of Misinformation on Social Media

According to the study, "Facebook, Twitter, YouTube, and WhatsApp" were the primary social media platforms used in Jaipur to spread false information regarding COVID-19. The high penetration of these platforms, combined with varying levels of digital literacy, created an environment where misinformation could easily thrive.

Literature Connection:

This finding is in line with other research that has shown the role that social media plays in the spread of false information during health crises (Pennycook et al., 2020; Mukherjee, 2020). Social media is an efficient means of spreading both accurate and false information due to its vast reach and fast nature.

Theoretical Implication:

According to Rogers' Diffusion of Innovations Theory (2003a), factors that contribute to the rapid adoption and spread of false information on social media platforms include simplicity of use, emotional appeal, and the credibility of sources within social networks.

B. Types of Misinformation

The analysis identified several prevalent types of misinformation, including false claims about the virus's origins, transmission, and treatment, as well as conspiracy theories about vaccines and

government responses. These types of misinformation were often framed to exploit fear and uncertainty.

Literature Connection:

This mirrors findings in other studies that categorize misinformation into various types, each with different motives and impacts (Lewandowsky et al., 2017; Wardle & Derakhshan, 2017). The framing of misinformation to evoke strong emotional reactions is a well-documented strategy.

Theoretical Implication:

Framing Theory (Entman, 1993) helps explain how the presentation of misinformation influences its acceptance. Misinformation that taps into existing fears or biases is more likely to be believed and shared.

C. Impact of Misinformation on Public Behavior

Misinformation had significant negative impacts on public behavior in Jaipur. It led to confusion, mistrust in authorities, non-compliance with health measures, and direct harm to individuals' health and safety. For instance, false information about cures and preventive measures led some individuals to engage in dangerous practices.

Literature Connection:

The adverse effects of health misinformation are well-documented, with studies showing that it can undermine public health efforts and lead to harmful behaviors (Vraga & Bode, 2017; Southwell et al., 2019).

Theoretical Implication:

Information Overload Theory (Eppler & Mengis, 2004) provides a framework for understanding why individuals may struggle to discern accurate information amidst a flood of data. Cognitive overload can lead to reliance on heuristics, making people more susceptible to misinformation.

D. Socio-Demographic Factors Influencing Misinformation Spread

The study discovered that certain socio-demographic factors, including age, education level, and socioeconomic position, had an impact on the spread and acceptance of false information. People who are younger and have less education are more prone to come across and accept false information.

Literature Connection:

Research demonstrates that demographic factors affect a person's susceptibility to misinformation (Brennen et al., 2020). This conclusion is consistent with that research. Digital literacy and critical thinking skills play crucial roles in individuals' ability to evaluate information.

Theoretical Implication:

The Diffusion of Innovations Theory highlights how different segments of the population adopt new ideas at different rates. In this case, younger and less-educated individuals might be earlier adopters of misinformation due to their high social media usage and lower critical evaluation skills.

Implications for Public Health and Policy

The study's conclusions have a number of significant policy and public health ramifications:

Enhancing Digital Literacy:

There is a need for targeted interventions to improve digital literacy, particularly among younger and less-educated populations. Educational programs should focus on critical thinking skills and the ability to evaluate information sources.

Strengthening Public Health Communication:

Public health authorities must adopt effective communication strategies that counter misinformation. This includes using trusted sources and framing information in ways that resonate with the public.

Leveraging Technology:

Social media platforms should implement more robust measures to detect and mitigate misinformation. Collaboration between technology companies, health authorities, and researchers is essential to develop effective solutions.

Community Engagement:

Engaging with local communities and leveraging influential figures can help disseminate accurate information and counteract misinformation. In order to foster compliance with health measures and establish confidence, grassroots activities might be very important.

Throughout the COVID-19 pandemic in Jaipur, India, the study emphasizes how widespread misinformation was and how much of an influence it had on public health and behavior. By applying theoretical frameworks such as Framing Theory, Information Overload Theory, and Diffusion of Innovations Theory, the research provides a comprehensive understanding of the dynamics of misinformation. The findings underscore the urgent need for multi-faceted approaches to combat misinformation, involving education, effective communication, technological solutions, and community engagement. These efforts are crucial to safeguarding public health and ensuring social stability in the face of future crises.

Conclusion

The analysis of fake news in Jaipur during the COVID-19 outbreak has uncovered several significant tendencies. Facebook and WhatsApp have become crucial venues for spreading misinformation, both contributing to a substantial number of fake news cases. This demonstrates how social media platforms that are extensively utilized may shape public perceptions and responses in times of health emergency.

The vast spread of false information regarding hospitals and cures also highlights specific areas where misinformation thrives. By promoting untested cures, disseminating false information about medical facilities and treatments endangers public health. The prevalence of text-based fake news indicates that written content continues to be the major channel for disseminating false information, highlighting the need of textual analysis and content moderation in countering misinformation.

The study highlights that misinformation mostly stems from user-generated content on social media platforms. The decentralized nature of this dissemination underscores the difficulty of policing misinformation at its origin and underscores the responsibility of individual users in sustaining inaccurate narratives. The underlying motives behind fake news, such as endorsing the sale of medications and disseminating political propaganda, demonstrate a wide range of objectives that take advantage of public anxieties and weaknesses. To tackle these results, it is essential to implement comprehensive approaches that improve people's capacity to understand and analyze media, reinforce the rules and regulations of online platforms, and promote the development of critical thinking skills among users. This will help reduce the negative effects of false information on public health and social stability.

Although this specific research has produced unique and previously undisclosed findings, it does have several limitations. The information was derived from the city of Jaipur. The area has a diverse array of unique flora and fauna, along with occurrences of disinformation. In order to get a more comprehensive comprehension of this phenomenon, it is advisable to do more research in the future studies.

References

1. Allam, M. (2020). Chloroquine Phosphate is not proved to be an effective treatment for coronavirus. doi:10.22541/au.158880310.07889665.
2. Azim, S. S., Roy, A., Aich, A., & Dey, D. (2020). Fake news in the time of environmental disaster: Preparing framework for COVID-19. doi:10.31235/osf.io/wdr5v.
3. Belizário, J. E. (2020). Trained innate immunity, COVID-19 therapeutic dilemma, and fake science. *Clinics*, 75. doi:10.6061/clinics/2020/e2124.
4. Boykoff, J., & Laschever, E. (2011). The Tea Party Movement, Framing, and the US Media. *Social Movement Studies*, 10(4), 341–366. doi:10.1080/14742837.2011.614104.
5. Brennen, J. S., Simon, F. M., Howard, P. N., & Nielsen, R. K. (2020). Types, sources, and claims of COVID-19 misinformation. Reuters Institute.
6. Campinho, B. B. (2019). Constitution, democracy, regulation of the internet and electoral fake news in Brazilian elections: Constituição, democracia, regulação da internet e fake news nas eleições brasileiras. *Revista Publicum*, 5(2), 232–256. doi:10.12957/publicum.2019. 47211.
7. Eppler, M. J., & Mengis, J. (2004). The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The Information Society*, 20(5), 325–344. <https://doi.org/10.1080/01972240490507974>
8. Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
9. Field, M. (2020, March 19). Twitter cracks down on coronavirus fake news, cures and panic. Retrieved July 21, 2020, from <https://www.telegraph.co.uk/technology/2020/03/19/twitter-cracks-coronavirus-fake-news-cures-panic/>.
10. Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science Advances*, 5(1), eaau4586. <https://doi.org/10.1126/sciadv.aau4586>
11. Hudson, D. S. (2020). The economic, social and environmental impacts of COVID 19. *COVID-19 and Travel*. doi:10.23912/9781911635703-4429.
12. Kalsnes, B. (2018). Fake News. *Oxford Research Encyclopedia of Communication*. doi:10.1093/acrefore/9780190228613.013.809.
13. Kim, H., & Walker, D. (2020). Leveraging volunteer fact checking to identify misinformation about COVID-19 in social media. *Harvard Kennedy School Misinformation Review*. doi:10.37016/mr-2020-021.
14. Lara-Navarra, P., Falciani, H., Sánchez-Pérez, E. A., & Ferrer-Sapena, A. (2020). Information Management in Healthcare and Environment: Towards an Automatic System for Fake News Detection. *International Journal of Environmental Research and Public Health*, 17(3), 1066. doi:10.3390/ijerph17031066.
15. Lau, A. Y., & Coiera, E. W. (2009). Can Cognitive Biases during Consumer Health Information Searches Be Reduced to Improve Decision Making? *Journal of the American Medical Informatics Association*, 16(1), 54–65. doi:10.1197/jamia.m2557.
16. Lewandowsky, S., Ecker, U. K. H., & Cook, J. (2017). Beyond misinformation: Understanding and coping with the "post-truth" era. *Journal of Applied Research in Memory and Cognition*, 6(4), 353–369. <https://doi.org/10.1016/j.jarmac.2017.07.008>
17. Mukherjee, S. (2020). Social media and the COVID-19 pandemic: Misinformation and policy implications. *Journal of Economic Policy and Research*, 15(2), 49–63.
18. McQuail, D. (2005). *McQuail's reader in mass communication theory*. London, UK: Sage Publications.

19. Ouedraogo, N. (2020). Social Media Literacy in Crisis Context: Fake News Consumption during COVID-19 Lockdown. *SSRN Electronic Journal*. doi:10.2139/ssrn.3601466.
20. Pennycook, G., & Rand, D. G. (2020). Fighting misinformation on social media using crowdsourced judgments of news source quality. *Proceedings of the National Academy of Sciences*, 116(7), 2521–2526. <https://doi.org/10.1073/pnas.1806781116>
21. Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
22. Raj, A., & Goswami, M. P. (2020). Is Fake News Spreading More Rapidly Than Covid-19 In India? *Journal of Content, Community and Communication*, 11(10), 208–220. doi: 10.31620/jccc.06.20/15.
23. Ricard, J., & Medeiros, J. (2020). Using Misinformation as A Political Weapon: Covid-19 And Bolsonaro In Brazil. *Harvard Kennedy School Misinformation Review*. doi:10.37016/mr-2020-013.
24. Rubella, M. (2018). The anti-vaccination movement. Retrieved from <https://measlesrubellainitiative.org/anti-vaccination-movement/>
25. Southwell, B. G., Thorson, E. A., & Sheble, L. (2019). The persistence and peril of misinformation. *American Scientist*, 107(6), 368–371. <https://doi.org/10.1511/2019.107.6.368>
26. Stephens, S. (2015). Framing the Eiffel Tower: From postcards to Postmodernism. *Framing French Culture*, 129–156. doi:10.20851/framing-french-06.
27. Tapia, L. (2020). COVID-19 and Fake News in the Dominican Republic. *The American Journal of Tropical Medicine and Hygiene*, 102(6), 1172–1174. doi:10.4269/ajtmh.20-0234.
28. Vraga, E. K., & Bode, L. (2017). Using expert sources to correct health misinformation in social media. *Science Communication*, 39(5), 621–645. <https://doi.org/10.1177/1075547017731776>
29. Wardle, C., & Derakhshan, H. (2017). *Information disorder: Toward an interdisciplinary framework for research and policy making*. Council of Europe.
30. Waran, K., Jayaseelan, R., & Brindha, D. (2020). Social Media Reigned by Information or Misinformation About COVID-19: A Phenomenological Study. *SSRN Electronic Journal*. doi:10.2139/ssrn.3596058.
31. WHO? (2020). Fake News Alert. Retrieved July 21, 2020, from [https://www.who.int/india/emergencies/coronavirus-disease-\(covid-19\)/fake-news-alert](https://www.who.int/india/emergencies/coronavirus-disease-(covid-19)/fake-news-alert).
32. Zarocostas, J. (2020). How to fight an infodemic. *The Lancet*, 395(10225), 676. doi:10.1016/s0140-6736(20)30461-x.
33. Zhan, G. (2014). Mobile Internet and User Happiness. *International Journal of Future Computer and Communication*, 3(4), 291–294. doi:10.7763/ijfcc2014.v3.314.
34. Zhang, S., Sun, S., Jahanshahi, A. A., Alvarez-Risco, A., Ibarra, V. G., Li, J., & Patty-Tito, R. M. (2020). Developing and testing a measure of COVID-19 Organizational Support of Healthcare Workers—Results from Peru, Ecuador, and Bolivia. doi:10.31234/osf.io/wpcf4.